<110> INCYTE CORPORATION; CHAWLA, Narinder K.;
TANG, Y. Tom Tang; GRIFFIN, Jennifer A.;
YANG, Yonghong G.; RAMKUMAR, Jayalaxmi;
KHARE, Reena; RICHARDSON, Thomas W.;
BECHA, Shanya D.; TRAN, Uyen K.;
KABLE, Amy E.; SWARNAKAR, Anita;
WARREN, Bridget A.; ELLIOTT, Vicki S.;
MARQUIS, Joseph P.; HAFALIA, April J.A.

<120> CARBOHYDRATE-ASSOCIATED PROTEINS

<130> PF-1612 PCT

<140> To Be Assigned
<141> Herewith

<150> US 60/425,423
<151> 2002-11-12

<150> US 60/441,847
<151> 2003-01-21

<150> US 60/453,882
<151> 2003-03-10

<150> US 60/456,645
<151> 2003-03-20

<150> US 60/463,676
151> 2003-04-16

<160> 40
<170> PERL Program

<210> 1
<211> 108
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7521032CD1

<400> 1
Met Ser Leu Phe Pro Ser Leu Pro Leu Leu Leu Leu Ser Met Val
1 5 10 15
Ala Ala Ser Tyr Ser Glu Thr Val Thr Cys Glu Asp Ala Gln Lys
20 25 30
Thr Cys Pro Ala Val Ile Ala Cys Ser Ser Pro Gly Ile Asn Gly
35 40 45
Phe Pro Gly Lys Asp Gly Arg Asp Gly Thr Lys Gly Glu Lys Gly
50 55 60
Glu Pro Gly Gln Gly Leu Arg Gly Leu Gln Gly Pro Pro Gly Lys
65 70 75
Leu Gly Pro Pro Gly Asn Pro Gly Pro Ser Gly Ser Pro Gly Pro
80 85 90
Lys Gly Gln Lys Gly Asp Pro Gly Lys Ser Pro Gly Lys Asp Pro
95 100 105
Ser Lys Val

<210> 2
<211> 622

<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2936048CD1

<400> 2
Met Ala Glu Asn Thr Glu Gly Asp Leu Asn Ser Asn Leu Leu His
1 5 10 15
Ala Pro Tyr His Thr Gly Asp Pro Gln Leu Asp Thr Ala Ile Gly
20 25 30
Gln Trp Leu Arg Trp Asp Lys Asn Pro Lys Thr Lys Glu Gln Ile
35 40 45
Glu Asn Leu Leu Arg Asn Gly Met Asn Lys Glu Leu Arg Asp Arg
50 55 60
Leu Cys Cys Arg Met Thr Phe Gly Thr Ala Gly Leu Arg Ser Ala
65 70 75
Met Gly Ala Gly Phe Cys Tyr Ile Asn Asp Leu Thr Val Ile Gln
80 85 90
Ser Thr Gln Gly Met Tyr Lys Tyr Leu Glu Arg Cys Phe Ser Asp
95 100 105
Phe Lys Gln Arg Gly Phe Val Val Gly Tyr Asp Thr Arg Gly Gln
110 115 120
Val Thr Ser Ser Cys Ser Ser Gln Arg Leu Ala Lys Leu Thr Ala
125 130 135
Ala Val Leu Leu Ala Lys Asp Val Pro Val Tyr Leu Phe Ser Arg
140 145 150
Tyr Val Pro Thr Pro Phe Val Pro Tyr Ala Val Gln Lys Leu Lys
155 160 165
Ala Val Ala Gly Val Met Ile Thr Ala Ser His Asn Arg Lys Glu
170 175 180
Asp Asn Gly Tyr Lys Val Tyr Trp Glu Thr Gly Ala Gln Ile Thr
185 190 195
Ser Pro His Asp Lys Glu Ile Leu Lys Cys Ile Glu Glu Cys Val
200 205 210
Glu Pro Trp Asn Gly Ser Trp Asn Asp Asn Leu Val Asp Thr Ser
215 220 225
Pro Leu Lys Arg Asp Pro Leu Gln Asp Ile Cys Arg Arg Tyr Met
230 235 240
Glu Asp Leu Lys Lys Ile Cys Phe Tyr Arg Glu Leu Asn Ser Lys
245 250 255
Thr Thr Leu Lys Phe Val His Thr Ser Phe His Gly Val Gly His
260 265 270
Asp Tyr Val Gln Leu Ala Phe Lys Val Phe Gly Phe Lys Pro Pro
275 280 285
Ile Pro Val Pro Glu Gln Lys Asp Pro Asp Pro Asp Phe Ser Thr
290 295 300
Val Lys Cys Pro Asn Pro Glu Glu Gly Glu Ser Val Leu Glu Leu
305 310 315
Ser Leu Arg Leu Ala Glu Lys Glu Asn Ala Arg Val Val Leu Ala
320 325 330
Thr Asp Pro Asp Ala Asp Arg Leu Ala Ala Ala Glu Leu Gln Glu
335 340 345
Asn Gly Cys Trp Lys Val Phe Thr Gly Asn Glu Leu Ala Ala Leu
350 355 360
Phe Gly Trp Trp Met Phe Asp Cys Trp Lys Lys Asn Lys Ser Arg
365 370 375
Asn Ala Asp Val Lys Asn Val Tyr Met Leu Ala Thr Thr Val Ser
380 385 390
Ser Lys Ile Leu Lys Ala Ile Ala Leu Lys Glu Gly Phe His Phe
395 400 405
Glu Glu Thr Leu Pro Gly Phe Lys Trp Ile Gly Ser Arg Ile Ile

```
                410                 415                 420
Asp Leu Leu Glu Asn Gly Lys Glu Val Leu Phe Ala Phe Glu Glu
                425                 430                 435
Ser Ile Gly Phe Leu Cys Gly Thr Ser Val Leu Asp Lys Asp Gly
                440                 445                 450
Val Ser Ala Ala Val Val Val Ala Glu Met Ala Ser Tyr Leu Glu
                455                 460                 465
Thr Met Asn Ile Thr Leu Lys Gln Gln Leu Val Lys Val Tyr Glu
                470                 475                 480
Lys Tyr Gly Tyr His Ile Ser Lys Thr Ser Tyr Phe Leu Cys Tyr
                485                 490                 495
Glu Pro Pro Thr Ile Lys Ser Ile Phe Glu Arg Leu Arg Asn Phe
                500                 505                 510
Asp Ser Pro Lys Glu Tyr Pro Lys Phe Cys Gly Thr Phe Ala Ile
                515                 520                 525
Leu His Val Arg Asp Ile Thr Thr Gly Tyr Asp Ser Ser Gln Pro
                530                 535                 540
Asn Lys Lys Ser Val Leu Pro Val Ser Lys Asn Ser Gln Met Ile
                545                 550                 555
Thr Phe Thr Phe Gln Asn Gly Cys Val Ala Thr Leu Arg Thr Ser
                560                 565                 570
Gly Thr Glu Pro Lys Ile Lys Tyr Tyr Ala Glu Met Cys Ala Ser
                575                 580                 585
Pro Asp Gln Ser Asp Thr Ala Leu Leu Glu Glu Glu Leu Lys Lys
                590                 595                 600
Leu Ile Asp Ala Leu Ile Glu Asn Phe Leu Gln Pro Ser Lys Asn
                605                 610                 615
Gly Leu Ile Trp Arg Ser Val
                620
```

<210> 3
<211> 210
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7521726CD1

<400> 3

```
Met Ala Gly Cys Val Pro Leu Leu Gln Gly Leu Val Leu Val Leu
  1                 5                  10                  15
Ala Leu His Arg Val Glu Pro Ser Val Phe Leu Pro Ala Ser Lys
                 20                  25                  30
Ala Asn Asp Val Leu Val Arg Trp Lys Arg Ala Gly Ser Tyr Leu
                 35                  40                  45
Leu Glu Glu Leu Phe Glu Gly Asn Leu Glu Lys Glu Cys Tyr Glu
                 50                  55                  60
Glu Thr Cys Val Tyr Glu Glu Ala Arg Glu Val Phe Glu Asn Glu
                 65                  70                  75
Val Val Thr Asp Glu Phe Trp Arg Arg Tyr Lys Gly Gly Ser Pro
                 80                  85                  90
Cys Ile Ser Gln Pro Cys Leu His Asn Gly Ser Cys Gln Asp Ser
                 95                 100                 105
Ile Trp Gly Tyr Thr Cys Thr Cys Ser Pro Gly Tyr Glu Gly Ser
                110                 115                 120
Asn Cys Glu Leu Ala Lys Asn Glu Cys His Pro Glu Arg Thr Asp
                125                 130                 135
Gly Cys Gln His Phe Cys Leu Pro Gly Gln Glu Ser Tyr Thr Cys
                140                 145                 150
Ser Cys Ala Gln Gly Tyr Arg Leu Gly Glu Asp His Lys Gln Cys
                155                 160                 165
Val Pro His Asp Gln Cys Ala Cys Gly Val Leu Thr Ser Glu Lys
```

```
                170                 175                 180
Arg Ala Pro Asp Leu Gln Asp Leu Pro Trp Gln Asn Glu Pro Arg
                185                 190                 195
Pro Ala Asp Asp Gln Asp Asn Ala Arg Pro Cys Ala His Ala Val
                200                 205                 210


<210> 4
<211> 248
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7523383CD1

<400> 4
Met Ala Lys Asp Phe Gln Asp Ile Gln Gln Leu Ser Ser Glu Glu
  1                 5                  10                  15
Asn Asp His Pro Phe His Gln Gly Ala Gln Leu Gln Ala Glu Leu
                 20                  25                  30
Arg Ser Leu Lys Glu Ala Phe Ser Asn Phe Ser Ser Ser Thr Leu
                 35                  40                  45
Thr Glu Val Gln Ala Ile Ser Thr His Gly Gly Ser Val Gly Asp
                 50                  55                  60
Lys Ile Thr Ser Leu Gly Ala Lys Leu Glu Lys Gln Gln Gln Asp
                 65                  70                  75
Leu Lys Ala Asp His Asp Ala Leu Leu Phe His Leu Lys His Phe
                 80                  85                  90
Pro Val Asp Leu Arg Phe Val Ala Cys Gln Met Glu Leu Leu His
                 95                 100                 105
Ser Asn Gly Ser Gln Arg Thr Cys Cys Pro Val Asn Trp Val Glu
                110                 115                 120
His Gln Gly Ser Cys Tyr Trp Phe Ser His Ser Gly Lys Ala Trp
                125                 130                 135
Ala Glu Ala Glu Lys Tyr Cys Gln Leu Glu Asn Ala His Leu Val
                140                 145                 150
Val Ile Asn Ser Trp Glu Glu Gln Lys Phe Ile Val Gln His Thr
                155                 160                 165
Asn Pro Phe Asn Thr Trp Ile Gly Leu Thr Asp Ser Asp Gly Ser
                170                 175                 180
Trp Lys Trp Val Asp Gly Thr Asp Tyr Arg His Asn Tyr Lys Asn
                185                 190                 195
Trp Ala Val Thr Gln Pro Asp Asn Trp His Gly His Glu Leu Gly
                200                 205                 210
Gly Ser Glu Asp Cys Val Glu Val Gln Pro Asp Gly Arg Trp Asn
                215                 220                 225
Asp Asp Phe Cys Leu Gln Val Tyr Arg Trp Val Cys Gly Lys Arg
                230                 235                 240
Arg Asn Ala Thr Gly Glu Val Ala
                245

<210> 5
<211> 97
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7522027CD1

<400> 5
Met Ala Gly Cys Val Pro Leu Leu Gln Gly Leu Val Leu Val Leu
```

```
  1               5                  10                  15
Ala Leu His Arg Val Glu Pro Ser Val Phe Leu Pro Ala Ser Lys
                20                  25                  30
Ala Asn Asp Val Leu Val Arg Trp Lys Arg Ala Gly Ser Tyr Leu
                35                  40                  45
Leu Glu Glu Leu Phe Glu Gly Asn Leu Glu Lys Glu Cys Tyr Glu
                50                  55                  60
Glu Ile Cys Val Tyr Glu Glu Ala Arg Glu Val Phe Glu Asn Glu
                65                  70                  75
Val Val Thr Asp Glu Phe Trp Arg Arg Tyr Lys Gly Lys Trp Phe
                80                  85                  90
Pro Ser Ser Pro Gln Lys Tyr
                95
```

<210> 6
<211> 479
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7524406CD1

<400> 6

```
Met Gly Arg Ile Gly Ile Ser Cys Leu Phe Pro Ala Ser Trp His
  1               5                  10                  15
Phe Ser Ile Ser Pro Val Gly Cys Pro Arg Ile Leu Asn Thr Asn
                20                  25                  30
Leu Arg Gln Ile Met Val Ile Ser Val Leu Ala Ala Ala Val Ser
                35                  40                  45
Leu Leu Tyr Phe Ser Val Val Ile Ile Arg Asn Lys Tyr Gly Arg
                50                  55                  60
Leu Thr Arg Asp Lys Lys Phe Gln Arg Tyr Leu Ala Arg Val Thr
                65                  70                  75
Asp Ile Glu Ala Thr Asp Thr Asn Asn Pro Asn Val Ser Tyr Gly
                80                  85                  90
Ile Val Val Asp Cys Gly Ser Ser Gly Ser Arg Val Phe Val Tyr
                95                 100                 105
Cys Trp Pro Arg His Asn Gly Asn Pro His Asp Leu Leu Asp Ile
               110                 115                 120
Arg Gln Met Arg Asp Lys Asn Arg Lys Pro Val Val Met Lys Ile
               125                 130                 135
Lys Pro Gly Ile Ser Glu Phe Ala Thr Ser Pro Glu Lys Val Ser
               140                 145                 150
Asp Tyr Ile Ser Pro Leu Leu Asn Phe Ala Ala Glu His Val Pro
               155                 160                 165
Arg Ala Lys His Lys Glu Thr Pro Leu Tyr Ile Leu Cys Thr Ala
               170                 175                 180
Gly Met Arg Ile Leu Pro Glu Ser Gln Gln Lys Ala Ile Leu Glu
               185                 190                 195
Asp Leu Leu Thr Asp Ile Pro Val His Phe Asp Phe Leu Phe Ser
               200                 205                 210
Asp Ser His Ala Glu Val Ile Ser Gly Lys Gln Glu Gly Val Tyr
               215                 220                 225
Ala Trp Ile Gly Ile Asn Phe Val Leu Gly Arg Phe Glu His Ile
               230                 235                 240
Glu Asp Asp Asp Glu Ala Val Val Glu Val Asn Ile Pro Gly Ser
               245                 250                 255
Glu Ser Ser Glu Ala Ile Val Arg Lys Arg Thr Ala Gly Ile Leu
               260                 265                 270
Asp Met Gly Gly Val Ser Thr Gln Ile Ala Tyr Glu Val Pro Lys
               275                 280                 285
Thr Glu Glu Val Ala Lys Asn Leu Leu Ala Glu Phe Asn Leu Gly
```

```
                290                 295                 300
Cys Asp Val His Gln Thr Glu His Val Tyr Arg Val Tyr Val Ala
                305                 310                 315
Thr Phe Leu Gly Phe Gly Gly Asn Ala Ala Arg Gln Arg Tyr Glu
                320                 325                 330
Asp Arg Ile Phe Ala Asn Thr Ile Gln Lys Asn Arg Leu Leu Gly
                335                 340                 345
Lys Gln Thr Gly Leu Thr Pro Asp Met Pro Tyr Leu Asp Pro Cys
                350                 355                 360
Leu Pro Leu Asp Ile Lys Asp Glu Ile Gln Gln Asn Gly Gln Thr
                365                 370                 375
Ile Tyr Leu Arg Gly Thr Gly Asp Phe Asp Leu Cys Arg Glu Thr
                380                 385                 390
Ile Gln Pro Phe Met Asn Lys Thr Asn Glu Thr Gln Thr Ser Leu
                395                 400                 405
Asn Gly Val Tyr Gln Pro Pro Ile His Phe Gln Asn Ser Glu Phe
                410                 415                 420
Tyr Gly Phe Ser Glu Phe Tyr Tyr Cys Thr Glu Asp Val Leu Arg
                425                 430                 435
Met Gly Gly Asp Tyr Asn Ala Ala Lys Phe Thr Lys Ala Ala Lys
                440                 445                 450
Asp Tyr Cys Ala Thr Lys Trp Ser Ile Leu Arg Glu Arg Phe Asp
                455                 460                 465
Arg Gly Leu Tyr Ala Ser His Ala Asp Leu His Arg Leu Lys
                470                 475
```

<210> 7
<211> 222
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7524922CD1

<400> 7

```
Met Ser Asp Ser Lys Glu Pro Arg Val Gln Gln Leu Gly Leu Leu
  1                 5                  10                  15
Val Ser Lys Val Pro Ser Ser Leu Ser Gln Glu Gln Ser Glu Gln
                 20                  25                  30
Asp Ala Ile Tyr Gln Asn Leu Thr Gln Leu Lys Ala Ala Val Gly
                 35                  40                  45
Glu Leu Ser Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu
                 50                  55                  60
Thr Gln Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys
                 65                  70                  75
Leu Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val
                 80                  85                  90
Gly Glu Leu Pro Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu
                 95                 100                 105
Leu Thr Arg Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser
                110                 115                 120
Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala Ala
                125                 130                 135
Val Gly Glu Leu Pro Asp Gln Ser Lys Gln Gln Gln Ile Tyr Gln
                140                 145                 150
Glu Leu Thr Asp Leu Lys Thr Ala Phe Glu Arg Leu Cys Arg His
                155                 160                 165
Cys Pro Lys Asp Trp Thr Phe Phe Gln Gly Asn Cys Tyr Phe Met
                170                 175                 180
Ser Asn Ser Gln Arg Asn Trp His Asn Ser Val Thr Ala Cys Gln
                185                 190                 195
Glu Val Arg Ala Gln Leu Val Val Ile Lys Thr Ala Glu Glu Gln
```

```
                200                 205                 210
Leu Pro Ala Val Leu Glu Gln Trp Arg Thr Gln Gln
                215                 220

<210> 8
<211> 370
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7524936CD1

<400> 8
Met Ser Asp Ser Lys Glu Pro Arg Val Gln Gln Leu Gly Leu Leu
  1               5                  10                  15
Glu Asp Pro Thr Thr Ser Gly Ile Arg Leu Phe Pro Arg Asp Phe
                20                  25                  30
Gln Phe Gln Gln Ile His Gly His Lys Ser Ser Thr Val Ser Lys
                35                  40                  45
Val Pro Ser Ser Leu Ser Gln Glu Gln Ser Glu Gln Asp Ala Ile
                50                  55                  60
Tyr Gln Asn Leu Thr Gln Leu Lys Ala Ala Val Gly Glu Leu Ser
                65                  70                  75
Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu
                80                  85                  90
Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Leu Gln Glu
                95                 100                 105
Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly Glu Leu
               110                 115                 120
Pro Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr Arg
               125                 130                 135
Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Leu Gln
               140                 145                 150
Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly Glu
               155                 160                 165
Leu Pro Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr
               170                 175                 180
Glu Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Leu
               185                 190                 195
Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala Ala Val Gly
               200                 205                 210
Glu Leu Pro Asp Gln Ser Lys Gln Gln Gln Ile Tyr Gln Glu Leu
               215                 220                 225
Thr Asp Leu Lys Thr Ala Phe Glu Arg Leu Cys Arg His Cys Pro
               230                 235                 240
Lys Asp Trp Thr Phe Phe Gln Gly Asn Cys Tyr Phe Met Ser Asn
               245                 250                 255
Ser Gln Arg Asn Trp His Asp Ser Val Thr Ala Cys Gln Glu Val
               260                 265                 270
Arg Ala Gln Leu Val Val Ile Lys Thr Ala Glu Glu Gln Asn Phe
               275                 280                 285
Leu Gln Leu Gln Thr Ser Arg Ser Asn Arg Phe Ser Trp Met Gly
               290                 295                 300
Leu Ser Asp Leu Asn Gln Glu Gly Thr Trp Gln Trp Val Asp Gly
               305                 310                 315
Ser Pro Leu Ser Pro Ser Phe Gln Arg Tyr Trp Asn Ser Gly Glu
               320                 325                 330
Pro Asn Asn Ser Gly Asn Glu Asp Cys Ala Glu Phe Ser Gly Ser
               335                 340                 345
Gly Trp Asn Asp Asn Arg Cys Asp Val Asp Asn Tyr Trp Ile Cys
               350                 355                 360
Lys Lys Pro Ala Pro Arg Phe Arg Asp Glu
```

365 370

<210> 9
<211> 77
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7512039CD1

<400> 9
Met Asn Ser Ser Lys Ser Ser Glu Thr Gln Cys Thr Glu Arg Gly
1 5 10 15
Cys Phe Ser Ser Gln Met Phe Leu Trp Thr Val Ala Gly Ile Pro
20 25 30
Ile Leu Phe Leu Ser Ala Cys Phe Ile Thr Arg Cys Val Val Thr
35 40 45
Phe Arg Ile Phe Gln Thr Cys Asp Glu Lys Lys Phe Gln Leu Pro
50 55 60
Glu Asn Phe Thr Glu Leu Ser Cys Tyr Asn Tyr Gly Ser Ala Ser
65 70 75
Gly Met

<210> 10
<211> 415
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7512576CD1

<400> 10
Met Pro Ala Val Ser Gly Pro Gly Pro Leu Phe Cys Leu Leu Leu
1 5 10 15
Leu Leu Leu Asp Pro His Ser Pro Glu Thr Gly Cys Pro Pro Leu
20 25 30
Arg Arg Phe Glu Tyr Lys Leu Ser Phe Lys Gly Pro Arg Leu Ala
35 40 45
Leu Pro Gly Ala Gly Ile Pro Phe Trp Ser His His Gly Asp Ala
50 55 60
Ile Leu Gly Leu Glu Glu Val Arg Leu Thr Pro Ser Met Arg Asn
65 70 75
Arg Ser Gly Ala Val Trp Ser Arg Ala Ser Val Pro Phe Ser Ala
80 85 90
Trp Glu Val Glu Val Gln Met Arg Val Thr Gly Leu Gly Arg Arg
95 100 105
Gly Ala Gln Gly Met Ala Val Trp Tyr Thr Arg Gly Arg Gly His
110 115 120
Val Gly Ser Val Leu Gly Gly Leu Ala Ser Trp Asp Gly Ile Gly
125 130 135
Ile Phe Phe Asp Ser Pro Ala Glu Asp Thr Gln Asp Ser Pro Ala
140 145 150
Ile Arg Val Leu Ala Ser Asp Gly His Ile Pro Ser Glu Gln Pro
155 160 165
Gly Asp Gly Ala Ser Gln Gly Leu Gly Ser Cys His Trp Asp Phe
170 175 180
Arg Asn Arg Pro His Pro Phe Arg Ala Arg Ile Thr Tyr Trp Gly
185 190 195
Gln Arg Leu Arg Met Ser Leu Asn Ser Gly Leu Thr Pro Ser Asp
200 205 210

```
Pro Asp Asp His Asp Val Leu Ser Phe Leu Thr Phe Ser Leu Ser
                215                 220                 225
Glu Pro Ser Pro Glu Val Pro Pro Gln Pro Phe Leu Glu Met Gln
                230                 235                 240
Gln Leu Arg Leu Ala Arg Gln Leu Glu Gly Leu Trp Ala Arg Leu
                245                 250                 255
Gly Leu Gly Thr Arg Glu Asp Val Thr Pro Lys Ser Asp Ser Glu
                260                 265                 270
Ala Gln Gly Glu Gly Glu Arg Leu Phe Asp Leu Glu Glu Thr Leu
                275                 280                 285
Gly Arg His Arg Arg Ile Leu Gln Ala Leu Arg Gly Leu Ser Lys
                290                 295                 300
Gln Leu Ala Gln Ala Glu Arg Gln Trp Lys Lys Gln Leu Gly Pro
                305                 310                 315
Pro Gly Gln Ala Arg Pro Asp Gly Gly Trp Ala Leu Asp Ala Ser
                320                 325                 330
Cys Gln Ile Pro Ser Thr Pro Gly Arg Gly Gly His Leu Ser Met
                335                 340                 345
Ser Leu Asn Lys Asp Ser Ala Lys Val Gly Ala Leu Leu His Gly
                350                 355                 360
Gln Trp Thr Leu Leu Gln Ala Leu Gln Glu Met Ser Arg Gln Glu
                365                 370                 375
Leu Asn Lys Ser Leu Gln Glu Cys Leu Ser Thr Gly Ser Leu Pro
                380                 385                 390
Leu Gly Pro Ala Pro His Thr Pro Arg Ala Leu Gly Ile Leu Met
                395                 400                 405
Arg Gln Pro Leu Pro Ala Ser Met Pro Ala
                410                 415
```

<210> 11
<211> 441
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7514864CD1

<400> 11

```
Met Ala Ala Ala Met Pro Leu Ala Leu Leu Val Leu Leu Leu Leu
  1                 5                  10                  15
Gly Pro Gly Gly Trp Cys Leu Ala Glu Pro Pro Arg Asp Ser Leu
                 20                  25                  30
Arg Glu Glu Leu Val Ile Thr Pro Leu Pro Ser Gly Asp Val Ala
                 35                  40                  45
Ala Thr Phe Gln Phe Arg Thr Arg Trp Asp Ser Glu Leu Gln Arg
                 50                  55                  60
Glu Gly Gly Leu Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His
                 65                  70                  75
Thr Ser Tyr His Ser Gln Ala Val His Ile Arg Pro Val Cys Arg
                 80                  85                  90
Asn Ala Arg Cys Thr Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu
                 95                 100                 105
Ser Val Val Phe Asp Ala Phe Ile Ala Gly Gln Gly Lys Lys Asp
                110                 115                 120
Trp Ser Leu Phe Arg Met Phe Ser Arg Thr Leu Thr Glu Pro Cys
                125                 130                 135
Pro Leu Ala Ser Glu Ser Arg Val Tyr Val Asp Ile Thr Thr Tyr
                140                 145                 150
Asn Gln Asp Asn Glu Thr Leu Glu Val His Pro Pro Pro Thr Thr
                155                 160                 165
Thr Tyr Gln Asp Val Ile Leu Gly Thr Arg Lys Thr Tyr Ala Ile
                170                 175                 180
```

```
Tyr Asp Leu Leu Asp Thr Ala Met Ile Asn Asn Ser Arg Asn Leu
                185                 190                 195
Asn Ile Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu Ala Pro
                200                 205                 210
Pro Val Pro Phe Leu Arg Ala Gln Arg Tyr Val Ser Gly Tyr Gly
                215                 220                 225
Leu Gln Lys Gly Glu Leu Ser Thr Leu Leu Tyr Asn Thr His Pro
                230                 235                 240
Tyr Arg Ala Phe Pro Val Leu Leu Leu Asp Thr Val Pro Trp Tyr
                245                 250                 255
Leu Arg Leu Tyr Val His Thr Leu Thr Ile Thr Ser Lys Gly Lys
                260                 265                 270
Glu Asn Lys Pro Ser Tyr Ile His Tyr Gln Pro Ala Gln Asp Arg
                275                 280                 285
Leu Gln Pro His Leu Leu Glu Met Leu Ile Gln Leu Pro Ala Asn
                290                 295                 300
Ser Val Thr Lys Val Ser Ile Gln Phe Glu Arg Ala Leu Leu Lys
                305                 310                 315
Trp Thr Glu Tyr Thr Pro Asp Pro Asn His Gly Phe Tyr Val Ser
                320                 325                 330
Pro Ser Val Leu Ser Ala Leu Val Pro Ser Met Val Ala Ala Lys
                335                 340                 345
Pro Val Asp Trp Glu Glu Ser Pro Leu Phe Asn Ser Leu Phe Pro
                350                 355                 360
Val Ser Asp Gly Ser Asn Tyr Phe Val Arg Leu Tyr Thr Glu Pro
                365                 370                 375
Leu Leu Val Asn Leu Pro Thr Pro Asp Phe Ser Met Pro Tyr Asn
                380                 385                 390
Val Ile Cys Leu Thr Cys Thr Val Val Ala Val Cys Tyr Gly Ser
                395                 400                 405
Phe Tyr Asn Leu Leu Thr Arg Thr Phe His Ile Glu Glu Pro Arg
                410                 415                 420
Thr Gly Gly Leu Ala Lys Arg Leu Ala Asn Leu Ile Arg Arg Ala
                425                 430                 435
Arg Gly Val Pro Pro Leu
                440
```

<210> 12
<211> 283
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 8266965CD1

<400> 12

```
Met Thr Gln Leu Lys Glu Ala Ala Ile Gly Val Leu Val Leu Ser
  1                 5                  10                  15
Trp Tyr Pro Pro Gly Met Ala Asp Asp Asn Gly Glu Pro Ser Asp
                 20                  25                  30
Asp Leu Val Pro Ala Ile Leu Asp Thr Ala His Gln Tyr Ser Ile
                 35                  40                  45
Gln Val Ala Phe His Ile Gln Pro Tyr Lys Gly Arg Asp Asp Ile
                 50                  55                  60
Thr Val His Asp Asn Ile Lys Tyr Ile Ile Asp Thr Tyr Gly Ser
                 65                  70                  75
His Gly Ala Phe Tyr Arg Tyr Lys Asn Ser Met Gly Lys Ser Leu
                 80                  85                  90
Pro Leu Phe Tyr Ile Tyr Asp Ser Tyr Leu Thr Ser Pro Glu Ala
                 95                 100                 105
Trp Ala His Leu Leu Thr Pro Asn Gly Pro His Ser Ile Arg Asn
                110                 115                 120
```

```
Thr Pro Tyr Asp Gly Val Phe Ile Ala Leu Leu Val Glu Glu Gly
                125                 130                 135
His Thr His Asp Ile Leu Ala Ala Gly Phe Asp Gly Met Tyr Thr
                140                 145                 150
Tyr Phe Ala Ser Asn Gly Phe Ser Phe Gly Ser Ser His Gln Asn
                155                 160                 165
Trp Lys Ala Val Lys Asn Phe Cys Asp Ala Asn Asn Leu Met Phe
                170                 175                 180
Ile Pro Ser Val Gly Pro Gly Tyr Ile Asp Thr Ser Ile Arg Pro
                185                 190                 195
Trp Asn Asn His Asn Thr Arg Asn Arg Val Asn Gly Lys Tyr Tyr
                200                 205                 210
Glu Thr Ala Leu Gln Ala Ala Leu Thr Val Arg Pro Glu Ile Val
                215                 220                 225
Ser Ile Thr Ser Phe Asn Glu Trp His Glu Gly Thr Gln Ile Glu
                230                 235                 240
Lys Ala Ile Pro Lys Lys Thr Pro Thr Arg Leu Tyr Leu Asp Tyr
                245                 250                 255
Leu Pro His Gln Pro Ser Leu Tyr Leu Glu Leu Thr Arg Arg Trp
                260                 265                 270
Ala Glu His Phe Ile Lys Glu Lys Glu Gln Trp Leu Met
                275                 280
```

<210> 13
<211> 159
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7515124CD1

<400> 13

```
Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Gly
  1                 5                  10                  15
Val Arg Ala Ser Glu Arg Leu Ala Glu Ile Asp Met Pro Tyr Leu
                 20                  25                  30
Leu Lys Tyr Gln Pro Met Met Gln Thr Ile Gly Gln Lys Tyr Cys
                 35                  40                  45
Met Asp Pro Ala Val Ile Ala Gly Val Leu Ser Arg Lys Ser Pro
                 50                  55                  60
Gly Asp Lys Ile Leu Val Asn Met Gly Asp Arg Thr Ser Met Val
                 65                  70                  75
Gln Asp Pro Gly Ser Gln Ala Pro Thr Ser Trp Ile Ser Glu Ser
                 80                  85                  90
Gln Val Ser Gln Thr Thr Glu Val Leu Thr Thr Arg Ile Lys Glu
                 95                 100                 105
Ile Gln Arg Arg Phe Pro Thr Trp Thr Pro Asp Gln Tyr Leu Arg
                110                 115                 120
Gly Gly Leu Cys Ala Tyr Ser Gly Gly Ala Gly Tyr Val Arg Ser
                125                 130                 135
Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn Asp Val Leu Ala Arg
                140                 145                 150
Ala Lys Tyr Leu Lys Arg His Gly Phe
                155
```

<210> 14
<211> 154
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature

<223> Incyte ID No: 7514570CD1

<400> 14
Met His Asp Ser Asn Asn Val Glu Lys Asp Ile Thr Pro Ser Glu
1 5 10 15
Leu Pro Ala Asn Pro Ala Ile Arg Ala Asn Cys His Gln Glu Pro
20 25 30
Ser Val Cys Leu Gln Ala Ala Cys Pro Glu Ser Trp Ile Gly Phe
35 40 45
Gln Arg Lys Cys Phe Tyr Phe Ser Asp Asp Thr Lys Asn Trp Thr
50 55 60
Ser Ser Gln Arg Phe Cys Asp Ser Gln Asp Ala Asp Leu Ala Gln
65 70 75
Val Glu Ser Phe Gln Glu Leu Asn Phe Leu Leu Arg Tyr Lys Gly
80 85 90
Pro Ser Asp His Trp Ile Gly Leu Ser Arg Glu Gln Gly Gln Pro
95 100 105
Trp Lys Trp Ile Asn Gly Thr Glu Trp Thr Arg Gln Phe Pro Ile
110 115 120
Leu Gly Ala Gly Glu Cys Ala Tyr Leu Asn Asp Lys Gly Ala Ser
125 130 135
Ser Ala Arg His Tyr Thr Glu Arg Lys Trp Ile Cys Ser Lys Ser
140 145 150
Asp Ile His Val

<210> 15
<211> 431
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7515114CD1

<400> 15
Met Pro Ala Val Ser Gly Pro Gly Pro Leu Phe Cys Leu Leu Leu
1 5 10 15
Leu Leu Leu Asp Pro His Ser Pro Glu Thr Gly Cys Pro Pro Leu
20 25 30
Arg Arg Phe Glu Tyr Lys Leu Ser Phe Lys Gly Pro Arg Leu Ala
35 40 45
Leu Pro Gly Ala Gly Ile Pro Phe Trp Ser His His Gly Asp Ala
50 55 60
Ile Leu Gly Leu Glu Glu Val Arg Leu Thr Pro Ser Met Arg Asn
65 70 75
Arg Ser Gly Ala Val Trp Ser Arg Ala Ser Val Pro Phe Ser Ala
80 85 90
Trp Glu Val Glu Val Gln Met Arg Val Thr Gly Leu Gly Arg Arg
95 100 105
Gly Ala Gln Gly Met Ala Val Trp Tyr Thr Arg Gly Arg Gly His
110 115 120
Val Gly Ser Val Leu Gly Gly Leu Ala Ser Trp Asp Gly Ile Gly
125 130 135
Ile Phe Phe Asp Ser Pro Ala Glu Asp Thr Gln Asp Ser Pro Ala
140 145 150
Ile Arg Val Leu Ala Ser Asp Gly His Ile Pro Ser Glu Gln Pro
155 160 165
Gly Asp Gly Ala Ser Gln Gly Leu Gly Ser Cys His Trp Asp Phe
170 175 180
Arg Asn Arg Pro His Pro Phe Arg Ala Arg Ile Thr Tyr Trp Gly
185 190 195
Gln Arg Leu Arg Met Ser Leu Asn Ser Gly Leu Thr Pro Ser Asp

```
                200                 205                 210
Pro Gly Glu Phe Cys Val Asp Val Gly Pro Leu Leu Leu Val Pro
                215                 220                 225
Gly Gly Phe Phe Gly Val Ser Ala Ala Thr Gly Thr Leu Ala Gly
                230                 235                 240
Glu Asp Pro Thr Gly Gln Val Pro Pro Gln Pro Phe Leu Glu Met
                245                 250                 255
Gln Gln Leu Arg Leu Ala Arg Gln Leu Glu Gly Leu Trp Ala Arg
                260                 265                 270
Leu Gly Leu Gly Thr Arg Glu Asp Val Thr Pro Lys Ser Asp Ser
                275                 280                 285
Glu Ala Gln Gly Glu Gly Glu Arg Leu Phe Asp Leu Glu Glu Thr
                290                 295                 300
Leu Gly Arg His Arg Arg Ile Leu Gln Ala Leu Arg Gly Leu Ser
                305                 310                 315
Lys Gln Leu Ala Gln Ala Glu Arg Gln Trp Lys Lys Gln Leu Gly
                320                 325                 330
Pro Pro Gly Gln Thr Arg Pro Asp Gly Gly Trp Ala Leu Asp Ala
                335                 340                 345
Ser Cys Gln Ile Pro Ser Thr Pro Gly Arg Gly Gly His Leu Ser
                350                 355                 360
Met Ser Leu Asn Lys Asp Ser Ala Lys Val Gly Ala Leu Leu His
                365                 370                 375
Gly Gln Trp Thr Leu Leu Gln Ala Leu Gln Glu Met Ser Arg Gln
                380                 385                 390
Glu Leu Asn Lys Ser Leu Gln Glu Cys Leu Ser Thr Gly Ser Leu
                395                 400                 405
Pro Leu Gly Pro Ala Pro His Thr Pro Arg Ala Leu Gly Ile Leu
                410                 415                 420
Arg Arg Gln Pro Leu Pro Ala Ser Met Pro Ala
                425                 430
```

<210> 16
<211> 442
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7515136CD1

<400> 16

```
Met Pro Ala Val Ser Gly Pro Gly Pro Leu Phe Cys Leu Leu Leu
  1                 5                  10                  15
Leu Leu Leu Asp Pro His Ser Pro Glu Thr Gly Cys Pro Pro Leu
                 20                  25                  30
Arg Arg Phe Glu Tyr Lys Leu Ser Phe Lys Gly Pro Arg Leu Ala
                 35                  40                  45
Leu Pro Gly Ala Gly Ile Pro Phe Trp Ser His His Gly Asp Ala
                 50                  55                  60
Ile Leu Gly Leu Glu Glu Val Arg Leu Thr Pro Ser Met Arg Asn
                 65                  70                  75
Arg Ser Gly Ala Val Trp Ser Arg Ala Ser Val Pro Phe Ser Ala
                 80                  85                  90
Trp Glu Val Glu Val Gln Met Arg Val Thr Gly Leu Gly Arg Arg
                 95                 100                 105
Gly Ala Gln Gly Met Ala Val Trp Tyr Thr Arg Gly Arg Gly His
                110                 115                 120
Val Gly Ser Val Leu Gly Gly Leu Ala Ser Trp Asp Gly Ile Gly
                125                 130                 135
Ile Phe Phe Asp Ser Pro Ala Glu Asp Thr Gln Asp Ser Pro Ala
                140                 145                 150
Ile Arg Val Leu Ala Ser Asp Gly His Ile Pro Ser Glu Gln Pro
```

```
                155                 160                 165
Gly Asp Gly Ala Ser Gln Gly Leu Gly Ser Cys His Trp Asp Phe
                170                 175                 180
Arg Asn Arg Pro His Pro Phe Arg Ala Arg Ile Thr Tyr Trp Gly
                185                 190                 195
Gln Arg Leu Arg Met Ser Leu Asn Ser Gly Leu Thr Pro Ser Asp
                200                 205                 210
Pro Gly Glu Phe Cys Val Asp Val Gly Pro Leu Leu Leu Val Pro
                215                 220                 225
Gly Gly Phe Phe Gly Val Ser Ala Ala Thr Gly Thr Leu Ala Asp
                230                 235                 240
Asp His Asp Val Leu Ser Phe Leu Thr Phe Ser Leu Ser Glu Pro
                245                 250                 255
Ser Pro Glu Val Pro Pro Gln Pro Phe Leu Glu Met Gln Gln Leu
                260                 265                 270
Arg Leu Ala Arg Gln Leu Glu Gly Leu Trp Ala Arg Leu Gly Leu
                275                 280                 285
Gly Thr Arg Glu Asp Val Thr Pro Lys Ser Asp Ser Glu Ala Gln
                290                 295                 300
Gly Glu Gly Glu Arg Leu Phe Asp Leu Glu Glu Thr Leu Gly Arg
                305                 310                 315
His Arg Arg Ile Leu Gln Ala Leu Arg Gly Leu Ser Lys Gln Leu
                320                 325                 330
Ala Gln Ala Glu Arg Gln Trp Lys Lys Gln Leu Gly Pro Pro Gly
                335                 340                 345
Gln Ala Arg Pro Asp Gly Gly Trp Ala Leu Asp Ala Ser Cys Gln
                350                 355                 360
Ile Pro Ser Thr Pro Gly Arg Gly Gly His Leu Ser Met Ser Leu
                365                 370                 375
Asn Lys Asp Ser Ala Lys Val Gly Ala Leu Leu His Gly Gln Trp
                380                 385                 390
Thr Leu Leu Arg Ala Leu Gln Glu Met Arg Gln Glu Leu Asn Lys
                395                 400                 405
Ser Leu Gln Glu Cys Leu Ser Thr Gly Ser Leu Pro Leu Gly Pro
                410                 415                 420
Ala Pro His Thr Pro Arg Ala Leu Gly Ile Leu Arg Arg Gln Pro
                425                 430                 435
Leu Pro Ala Ser Met Pro Ala
                440
```

<210> 17
<211> 198
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7515308CD1

<400> 17

```
Met Thr Ser Glu Ile Thr Tyr Ala Glu Val Arg Phe Lys Asn Glu
  1               5                  10                  15
Phe Lys Ser Ser Gly Ile Asn Thr Ala Ser Ser Ala Val Phe Phe
                 20                  25                  30
Gln Lys Tyr Ser Gln Leu Leu Glu Lys Lys Thr Thr Lys Glu Leu
                 35                  40                  45
Val His Thr Thr Leu Glu Cys Val Lys Lys Asn Met Pro Val Glu
                 50                  55                  60
Glu Thr Ala Trp Ser Cys Cys Pro Lys Asn Trp Lys Ser Phe Ser
                 65                  70                  75
Ser Asn Cys Tyr Phe Ile Ser Thr Glu Ser Ala Ser Trp Gln Asp
                 80                  85                  90
Ser Glu Lys Asp Cys Ala Arg Met Glu Ala His Leu Leu Val Ile
```

```
                  95                  100                 105
Asn Thr Gln Glu Glu Gln Asp Phe Ile Phe Gln Asn Leu Gln Glu
                 110                 115                 120
Glu Ser Ala Tyr Phe Val Gly Leu Ser Asp Pro Glu Gly Gln Arg
                 125                 130                 135
His Trp Gln Trp Val Asp Gln Thr Pro Tyr Asn Glu Ser Ser Ala
                 140                 145                 150
Phe Trp His Pro Arg Glu Pro Ser Asp Pro Asn Glu Arg Cys Val
                 155                 160                 165
Val Leu Asn Phe Arg Lys Ser Pro Lys Arg Trp Gly Trp Asn Asp
                 170                 175                 180
Val Asn Cys Leu Gly Pro Gln Arg Ser Val Cys Glu Met Met Lys
                 185                 190                 195
Ile His Leu
```

<210> 18
<211> 336
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7516738CD1

<400> 18

```
Met Leu Leu Phe Leu Leu Ser Ala Leu Val Leu Leu Thr Gln Pro
  1               5                  10                  15
Leu Gly Tyr Leu Glu Ala Glu Met Lys Thr Tyr Ser His Arg Thr
                 20                  25                  30
Met Pro Ser Ala Cys Thr Leu Val Met Cys Ser Ser Val Glu Ser
                 35                  40                  45
Gly Leu Pro Gly Arg Asp Gly Arg Asp Gly Arg Glu Gly Pro Arg
                 50                  55                  60
Gly Glu Lys Gly Asp Pro Gly Leu Pro Gly Ala Ala Gly Gln Ala
                 65                  70                  75
Gly Met Pro Gly Gln Ala Gly Pro Val Gly Pro Lys Gly Asp Asn
                 80                  85                  90
Gly Ser Val Gly Glu Pro Gly Pro Lys Gly Asp Thr Gly Pro Ser
                 95                 100                 105
Gly Glu Val Gly Ala Pro Gly Met Gln Gly Ser Ala Gly Ala Arg
                110                 115                 120
Gly Leu Ala Gly Pro Lys Gly Glu Arg Gly Val Pro Gly Glu Arg
                125                 130                 135
Gly Val Pro Gly Asn Ala Gly Ala Ala Gly Ser Ala Gly Ala Met
                140                 145                 150
Gly Pro Gln Gly Ser Pro Gly Ala Arg Gly Pro Pro Gly Leu Lys
                155                 160                 165
Gly Asp Lys Gly Ile Pro Gly Asp Lys Gly Ala Lys Gly Glu Ser
                170                 175                 180
Gly Leu Pro Asp Val Ala Ser Leu Arg Gln Gln Val Glu Ala Leu
                185                 190                 195
Gln Gly Gln Val Gln His Leu Gln Ala Ala Phe Ser Gln Tyr Lys
                200                 205                 210
Lys Val Glu Leu Phe Pro Asn Gly Gln Ser Val Gly Glu Lys Ile
                215                 220                 225
Phe Lys Thr Ala Gly Phe Val Lys Pro Phe Thr Glu Ala Gln Leu
                230                 235                 240
Leu Cys Thr Gln Ala Gly Gly Gln Leu Ala Ser Pro Arg Ser Ala
                245                 250                 255
Ala Glu Asn Ala Ala Leu Gln Gln Leu Val Val Ala Lys Asn Glu
                260                 265                 270
Ala Ala Phe Leu Ser Met Thr Asp Ser Lys Thr Glu Gly Lys Phe
```

```
                275                 280                 285
Thr Tyr Pro Thr Gly Glu Ser Leu Val Tyr Ser Asn Trp Ala Pro
                290                 295                 300
Gly Glu Pro Asn Asp Asp Gly Gly Ser Glu Asp Cys Val Glu Ile
                305                 310                 315
Phe Thr Asn Gly Lys Trp Asn Asp Arg Ala Cys Gly Glu Lys Arg
                320                 325                 330
Leu Val Val Cys Glu Phe
                335
```

<210> 19
<211> 258
<212> PRT
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7518619CD1

<400> 19

```
Met Met Leu Ser Leu Asn Asn Leu Gln Asn Ile Ile Tyr Asn Pro
  1               5                  10                  15
Val Ile Pro Tyr Val Gly Thr Ile Pro Asp Gln Leu Asp Pro Gly
                20                  25                  30
Thr Leu Ile Val Ile Cys Gly His Val Pro Ser Asp Ala Asp Arg
                35                  40                  45
Phe Gln Val Asp Leu Gln Asn Gly Ser Ser Val Lys Pro Arg Ala
                50                  55                  60
Asp Val Ala Phe His Phe Asn Pro Arg Phe Lys Arg Ala Gly Cys
                65                  70                  75
Ile Val Cys Asn Thr Leu Ile Asn Glu Lys Trp Gly Arg Glu Glu
                80                  85                  90
Ile Thr Tyr Asp Thr Pro Phe Lys Arg Glu Lys Ser Phe Glu Ile
                95                 100                 105
Val Ile Met Val Leu Lys Asp Lys Phe Gln Val Pro Lys Ser Gly
               110                 115                 120
Thr Pro Gln Leu Ser Leu Pro Phe Ala Ala Arg Leu Asn Thr Pro
               125                 130                 135
Met Gly Pro Gly Arg Thr Val Val Val Lys Gly Glu Val Asn Ala
               140                 145                 150
Asn Ala Lys Ser Phe Asn Val Asp Leu Leu Ala Gly Lys Ser Lys
               155                 160                 165
Asp Ile Ala Leu His Leu Asn Pro Arg Leu Asn Ile Lys Ala Phe
               170                 175                 180
Val Arg Asn Ser Phe Leu Gln Glu Ser Trp Gly Glu Glu Glu Arg
               185                 190                 195
Asn Ile Thr Ser Phe Pro Phe Ser Pro Gly Met Tyr Phe Glu Met
               200                 205                 210
Ile Ile Tyr Cys Asp Val Arg Glu Phe Lys Val Ala Val Asn Gly
               215                 220                 225
Val His Ser Leu Glu Tyr Lys His Arg Phe Lys Glu Leu Ser Ser
               230                 235                 240
Ile Asp Thr Leu Glu Ile Asn Gly Asp Ile His Leu Leu Glu Val
               245                 250                 255
Arg Ser Trp
```

<210> 20
<211> 132
<212> PRT
<213> Homo sapiens

<220>

<221> misc_feature
<223> Incyte ID No: 7513061CD1

<400> 20
Met Ala Gln Thr Asn Ser Phe Phe Met Leu Ile Ser Ser Leu Met
1 5 10 15
Phe Leu Ser Leu Ser Gln Gly Gln Glu Ser Gln Thr Glu Leu Pro
20 25 30
Asn Pro Arg Ile Ser Cys Pro Glu Gly Thr Asn Ala Tyr Arg Ser
35 40 45
Tyr Cys Tyr Tyr Phe Asn Glu Asp Pro Glu Thr Trp Val Asp Ala
50 55 60
Asp Leu Tyr Cys Gln Asn Met Asn Ser Gly Asn Leu Val Ser Val
65 70 75
Leu Thr Gln Ala Glu Gly Ala Phe Val Ala Ser Leu Ile Lys Glu
80 85 90
Ser Ser Thr Asp Asp Ser Asn Val Trp Ile Gly Leu His Asp Pro
95 100 105
Lys Lys Asp Ser Arg Asn Gly Arg Met Asn Leu Val Arg Arg Ser
110 115 120
Ser Pro Leu Phe Ala Ser Ser Lys Thr Arg Gly Ser
125 130

<210> 21
<211> 1143
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7521032CB1

<400> 21
gcctgtgggt tgcagtaaaa agacaaggag ggcctgagtg atatgaccct tcagataggg 60
aactcacaga cggccagatg ggaggtggag cagggacgtc attccactgg ccatttttca 120
gtagcaatac acaatcttca tcagaaccag cattgttggg ttcaccctcg ttccagtttg 180
tgtaggtcag tctatttcct gtcagatcca caaactgccc ttctgtcttc tcatcagtga 240
tgcccaggaa ggcttcctcc ttgatgagat tctgaatggc tccatgtccc tgtttccatc 300
actccctctc cttctcctga gtatggtggc agcgtcttac tcagaaactg tgacctgtga 360
ggatgcccaa aagacctgcc ctgcagtgat tgcctgtagc tctccaggca tcaacggctt 420
cccaggcaaa gatgggcgtg atggcaccaa gggagaaaag ggggaaccag gccaagggct 480
cagaggctta cagggccccc ctggaaagtt ggggcctcca ggaaatccag ggccttctgg 540
gtcaccagga ccaaagggcc aaaaaggaga ccctggaaaa agtccgggta aggaccccag 600
caaggtctga gctgacttca cccaggggtt ctgagacctt gagtatctga tggtgatagt 660
agcctggctg cctcagaaag aaaagctctg caaacagaaa tggcacgtat caaaaagtgg 720
ctgaccttct ctctgggcaa acaagttggg aacaagttct tcctgaccaa tggtgaaata 780
atgacctttg aaaaagtgaa ggccttgtgt gtcaagttcc aggcccctgt ggccaccccc 840
aggaatgctg cagagaatgg agccattcag aatctcatca aggaggaagc cttcctgggc 900
atcactgatg agaagacaga agggcagttt gtggatctga caggaaatag actgacctac 960
acaaactgga acgagggtga acccaacaat gctggttctg atgaagattg tgtattgcta 1020
ctgaaaaatg gccagtggaa tgacgtcccc tgctccacct cccatctggc cgtctgtgag 1080
ttccctatct gaagggtcat atcactcagg ccctccttgt ctttttactg caacccacag 1140
gca 1143

<210> 22
<211> 2591
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 2936048CB1

<400> 22
cgcggcgcga ccgcctcagt cacttcgccc agagacccgg acctggtccg ctggggagca 60
ggcggccata aacccccctct ctcccggttc cctgacgccg cggcaggagc tgttacaaac 120
accctgcggt tggtctccga tgcccttcag tgaggtgggg acgcctggac cctggtgagc 180
gaaccccaag ccacccccca ccccaactca gtgtcttcgc cggcccccgg cccgtacgcc 240
tgtctggtcg ccatggctga aaacacagag ggggatctga actccaacct gctccacgcc 300
ccctaccaca ccggggaccc tcagctggac acggccatcg ggcagtggct ccgctgggat 360
aagaatccca aaacaaaaga gcagattgaa aacctgttac ggaatgggat gaacaaggag 420
ctgcgagatc gtctttgttg ccgaatgact tttgggactg caggacttcg ttctgccatg 480
ggggcagggt tttgctatat taatgacctt acagtaatac agtcaacaca ggggatgtac 540
aaataccttg agagatgttt ctcagacttc aagcagagag gctttgtggt tgggtatgac 600
actcggggtc aagtaactag cagctgcagc agccagaggc ttgctaaact cactgctgca 660
gtcttgctgg ccaaagatgt tcctgtgtac ctttttttcaa gatatgttcc tacacctttt 720
gtaccatatg cagttcagaa gctcaaagca gttgcaggtg tgatgattac tgcctctcac 780
aaccgcaagg aagacaatgg atacaaggtt tactgggaaa ctggtgctca gatcacatct 840
cctcatgata aagaaattct aaaatgtata gaagaatgtg tggaaccctg gaatggttcc 900
tggaatgata atttagtgga taccagcccg ctgaagagag accctctgca ggacatttgc 960
aggagataca tggaagatct gaaaaagatc tgtttttaca gggagttaaa ctcgaagacc 1020
accttgaaat ttgtgcacac atcttttcat ggggtcggac atgactatgt gcagttggct 1080
tttaaagtgt ttggttttaa gcctccaatt ccagtaccag aacaaaaaga tcctgatcca 1140
gacttttcta ccgttaaatg tccaaatcct gaagaaggag aatctgtgct ggaactttcc 1200
ttgagactgg cagagaaaga aaatgcccgg gtagtgctag ccacagatcc tgatgcagac 1260
agactggcag cagcagaact tcaggagaat ggttgttgga aagttttcac agggaatgag 1320
ttggcagctt tgtttggatg gtggatgttt gattgctgga agaaaaataa atcaagaaat 1380
gctgatgtga agaacgttta tatgttagcc accacagtct cttctaaaat tctgaaggca 1440
attgcactta aagaaggatt tcattttgaa gaaacattac caggttttaa atggattgga 1500
agtaggataa tagacctcct ggaaaatggg aaagaagtcc tttttgcatt tgaagagtct 1560
attggttttc tctgtggaac ttcagttttg gataaagatg gggtgagtgc agctgttgtg 1620
gttgctgaga tggcatctta cctggaaacc atgaatataa cattgaaaca gcaactggtt 1680
aaggtttatg aaaaatatgg ttatcatatt tcaaaaactt cctatttctt gtgttatgaa 1740
ccacctacca tcaaaagtat atttgaaagg cttcgtaatt ttgattctcc aaaagaatat 1800
ccaaaatttt gtggaacatt tgctatattg catgtacggg acattaccac tggatatgac 1860
agtagccagc ctaataagaa atcagtgctg cctgtgagta aaaacagcca aatgattaca 1920
tttacttttc aaaatggctg tgttgctacc cttcggacaa gtggaacaga accaaagata 1980
aagtattatg cagagatgtg tgcgtcacct gaccagagtg acactgcttt actggaggaa 2040
gaactgaaga aactcattga tgctctgata gagaattttc ttcagcctag taagaatgga 2100
ctgatctggc gttctgttta ggggtacacc aatatgtcat gacactgtgt gggcatatgg 2160
aacagagcaa ccgagaactg catacattga accttgtgtt agcattctct ctctatctca 2220
tctggccgag tatcttttttc cttttatttt ctttcttttt ggtcaactgg ctagactaaa 2280
caaagtataa gtttgaaatg aaatggtcta gagggaaatg attcaaattt tttcataatt 2340
caaacaaaag ttattacact aaaagtatta tagtaacgta ttgtccttcc gttaacagaa 2400
acatcacaat tcaaaagtga gttttcttat tatagtgtga ttaagcctag ttctgtatct 2460
cgtaattgtg aaaaaatttg aatcatttcc ctctagacca tttcatttca aacttatact 2520
ttgtttagtc tagccagttg accaaaaaga aagaaaataa aaggaaaaag atactcggcc 2580
agatgtcgac g 2591

<210> 23
<211> 1123
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7521726CB1

<400> 23
tatggcaggc tgcgtcccac tgctccaggg cctggtcctg gtcctcgccc tccatcgtgt 60
ggagccctca gtatttctcc cggcctccaa agcaaacgac gttctggtga ggtggaagcg 120
tgcgggctcc tatcttctgg aagaactctt cgagggaaac ttggaaaaag aatgttatga 180
agaaacctgt gtctatgaag aagcaagaga agtgtttgaa aatgaagtag tcactgatga 240
attctggaga cgatataagg gcggctcccc gtgcatctcc cagccctgcc tccacaacgg 300
ctcttgccag gacagcatct ggggctacac ctgcacctgc tcccccggct atgagggcag 360
caactgcgag ctggctaaaa atgaatgtca cccagagcgg actgatgggt gtcaacactt 420

ctgcctccca ggacaggaat cctacacgtg cagctgtgct cagggctaca ggcttggtga 480
ggaccacaaa cagtgtgtgc cccacgacca gtgtgcctgc ggggtgctga cctctgagaa 540
gcgtgcaccg gatctacagg acctcccgtg gcagaacgag ccaagacccg ctgatgatca 600
agataacgca cgtccatgtg cacatgcggt atgacgcgga cgcgggggag aatgacctgt 660
cactgctgga gctggagtgg cccatccagt gcccaggtgc ggggctcccc gtgtgcaccc 720
ctgagaaaga cttcgctgag cacctcctca tcccacgcac caggggcctc ctcagcggct 780
gggcacgcaa tggcactgac ctgggcaact cgctgaccac gcggcctgtc acacttgtgg 840
agggggagga gtgcgggcag gtcctgaatg tgactgtcac caccaggacc tactgtgaga 900
gaagcagcgt ggcggccatg cactggatgg atggaagtgt ggtcaccaga gaacacagag 960
gctcctggtt tctcacgggg gtcctgggct cgcagccagt aggagggcag gctcacatgg 1020
tccttgtcac caaggtctcc aggtactcac tctggtttaa acagatcatg aactaactga 1080
aactcagcta gccagaatga acaacacaac cggaagcggg ata 1123

<210> 24
<211> 780
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7523383CB1

<400> 24
tatcatggcc aaggactttc aagatatcca gcagctgagc tcggaggaaa atgaccatcc 60
tttccatcaa ggtgcacagc tgcaagccga gctgcggagc ctgaaggaag ctttcagcaa 120
cttctcctcg agcaccctga cggaggtcca ggcaatcagc acccacggag gcagcgtggg 180
tgacaagatc acatccctag gagccaagct ggagaaacag cagcaggacc tgaaagcaga 240
tcacgatgcc ctgctcttcc atctgaagca cttccccgtg gacctgcgct tcgtggcctg 300
ccagatggag ctcctccaca gcaacggctc ccaaaggacc tgctgccccg tcaactgggt 360
ggagcaccaa ggcagctgct actggttctc tcactccggg aaggcctggg ctgaggcgga 420
gaagtactgc cagctggaga acgcacacct ggtggtcatc aactcctggg aggagcagaa 480
attcattgta caacacacga acccttcaa tacctggata ggtctcacgg acagtgatgg 540
ctcttggaaa tgggtggatg gcacagacta taggcacaac tacaagaact gggctgtcac 600
tcagccagat aattggcacg ggcacgagct gggtggaagt gaagactgtg ttgaagtcca 660
gccggatggc cgctggaacg atgacttctg cctgcaggtg taccgctggg tgtgtgggaa 720
aaggcggaat gccaccggcg aggtggcctg accccagcac acctctggct aacccataca 780

<210> 25
<211> 1418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7522027CB1

<400> 25
tatggcaggc tgcgtcccac tgctccaggg cctggtcctg gtcctcgccc tccatcgtgt 60
ggagccctca gtatttctcc cggcctccaa agcaaacgac gttctggtga ggtggaagcg 120
tgcgggctcc tatcttctgg aagaactctt cgagggaaac ttggaaaaag aatgttatga 180
agaaatctgt gtctatgaag aagcaagaga agtgtttgaa aatgaagtag tcactgatga 240
attctggaga cgatataagg gtaagtggtt tccttcgtct cctcagaagt attaattcct 300
cgggatgagg tgcgtgggtg ggcttaggac gcttcacgac cccagctcag cggatgccaa 360
gcctctggct ccaggaccca cggtgtctct ccagggaagg gcagctccga ctctccccaa 420
ggaccaggcg gctccccgtg catctcccag ccctgcctcc acaacggctc ttgccaggac 480
agcatctggg gctacacctg cacctgctcc cccggctatg agggcagcaa ctgcgagctg 540
gctaaaaatg aatgtcaccc agagcggact gatgggtgtc aacacttctg cctcccagga 600
caggaatcct acacgtgcag ctgtgctcag ggctacaggc ttggtgagga ccacaaacag 660
tgtgtgcccc acgaccagtg tgcctgcggg gtgctgacct ctgagaagcg tgcaccggat 720
ctacaggacc tcccgtggca ggtaaagtta acaaattccg aaggaaaaga cttctgtggt 780
ggtgttataa tacgggaaaa ttttgtactg acaacagcaa aatgttcact gttacacagg 840
aatattactg taaaaacata ttttaacaga acgagccaag acccgctgat gatcaagata 900
acgcacgtcc atgtgcacat gcggtatgac gcggacgcgg gggagaatga cctgtcactg 960

ctggagctgg agtggcccat ccagtgccca ggtgcggggc tccccgtgtg cacccctgag 1020
aaagacttcg ctgagcacct cctcatccca cgcaccaggg gcctcctcag cggctgggca 1080
cgcaatggca ctgacctggg caactcgctg accacgcggc ctgtcacact tgtggagggg 1140
gaggagtgcg ggcaggtcct gaatgtgact gtcaccacca ggacctactg tgagagaagc 1200
agcgtggcgg ccatgcactg gatggatgga agtgtggtca ccagagaaca cagaggctcc 1260
tggtttctca cgggggtcct gggctcgcag ccagtaggag ggcaggctca catggtcctt 1320
gtcaccaagg tctccaggta ctcactctgg tttaaacaga tcatgaacta actgaaactc 1380
agctagccag aatgaacaac acaaccggaa gcgggata 1418

<210> 26
<211> 2076
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7524406CB1

<400> 26
tagagcattg ccttgttgct gacctttcag tatggggagg attggcatct cctgtctttt 60
tcctgcttct tggcatttta gcatatctcc agtagggtgt cctcgaattc tgaataccaa 120
tttacgccaa attatggtca ttagtgtcct ggctgctgct gtttcacttt tatatttttc 180
tgttgtcata atccgaaata agtatgggcg actaaccaga gacaagaaat ttcaaaggta 240
cctggcacga gttaccgaca ttgaagctac agacaccaat aaccccaatg tgagctatgg 300
gatcgtggtg gactgtggta gcagtgggtc tcgagtattt gtttactgct ggccaaggca 360
taatggcaat ccacatgatc tgttggatat caggcaaatg agggataaaa accgaaagcc 420
agtggtcatg aagataaaac cgggcatttc agaatttgct acctctccag agaaagtcag 480
tgattacatt tctccacttt tgaactttgc tgcagagcat gtgccacggg caaaacacaa 540
agagacacct ctctacattc tctgcacggc tggaatgaga atcctccccg aaagccagca 600
gaaagctatt ctggaagacc ttctgaccga tatccccgtg cactttgact ttctgttttc 660
tgactctcat gcagaagtaa tttctgggaa acaagaaggt gtgtatgctt ggattggcat 720
taattttgtc cttggacgat ttgagcatat tgaagatgat gatgaggccg ttgtggaagt 780
taacattcct ggaagtgaaa gcagcgaagc cattgtccgt aaaaggacag cgggcattct 840
cgacatgggc ggcgtgtcga ctcagatagc gtacgaagtc cccaaaactg aagaagtagc 900
taaaaacttg ttagctgaat ttaacttggg atgtgatgtt caccaaactg agcatgtgta 960
tcgagtctat gtggccacgt ttcttgggtt tggtggcaat gctgctcgac agagatacga 1020
agacagaata tttgccaaca ccattcaaaa gaacaggctc ctgggtaaac agactggtct 1080
gactcctgat atgccgtact tggacccctg cctacccctа gacattaaag atgaaatcca 1140
gcaaaatgga caaaccatat acctacgagg gactggagac tttgacctgt gtcgagagac 1200
tatccagcct ttcatgaata aaacaaacga gacccagact tccctcaatg gggtctacca 1260
gcccccaatt cacttccaga acagtgaatt ctatggcttc tccgaattct actactgcac 1320
cgaggatgtg ttacgaatgg ggggagacta caatgctgct aaatttacta aagctgcaaa 1380
ggattactgt gcaacaaagt ggtccatttt gcgggaacgc tttgaccgag gactgtacgc 1440
ctctcatgct gacctccaca ggcttaagtg aactgctcca tgttgtggga ccagggatgt 1500
gaagcaagta catcaacctt gaaacacgcg cagttggttt gggagagccg gcctgaggaa 1560
gcccctgccc caaggctgcc cacagaggga aggattgtgt gtgtgtgtgt gtgtgtgcca 1620
tcttgacaga gtgagtcagt ctgacttgcc tttgtgcttg ccgtttgtag gtatcagtgc 1680
ttcaaatcgg cctggatgtt tgaggtgttt catagggct tttcgtttcc tgtcagctat 1740
aaaagcttaa agactgcctt gcaagtttac gacaaggagg ttcagtggac ccttggagcc 1800
atcctctaca ggacccgctt tctaccatta agagacatcc agcaggaggc cttccgagcc 1860
agtcacaccc actggcgggg cgtttccttt gtctacaacc actacctgtt ctctggctgc 1920
ttcctggtgg tgctgctggc catcctgctg tacctgctgc ggctgcggcg catccacagg 1980
cgcactcccc ggagcagctc ggccgccgcc ctctggatgg aggagggcct tcccgcccag 2040
aatgccccag ggaccttgtg atccagctca cagcta 2076

<210> 27
<211> 783
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7524922CB1

<400> 27
tatgagtgac tccaaggaac caagggtgca gcagctgggc ctcctggtgt ccaaggtccc 60
cagctcccta agtcaggaac aatccgagca agacgcaatc taccagaacc tgacccagct 120
taaagctgca gtgggtgagc tctcagagaa atccaagctg caggagatct accaggagct 180
gacccagctg aaggctgcag tgggtgagtt gccagagaaa tccaagctgc aggagatcta 240
ccaggagctg acccggctga aggctgcagt gggtgagttg ccagagaaat ccaagctgca 300
ggagatctac caggagctga cccggctgaa ggctgcagtg ggtgagttgc cagagaaatc 360
caagctgcag gagatctacc aggagctgac ccagctgaag gctgcagtgg gtgagttgcc 420
agaccagtcc aagcagcagc aaatctatca agaactgacc gatttgaaga ctgcatttga 480
acgcctgtgc cgccactgtc ccaaggactg gacattcttc caaggaaact gttacttcat 540
gtctaactcc cagcggaact ggcacaactc cgtcaccgcc tgccaggaag tgagggccca 600
gctcgtcgta atcaaaactg ctgaggagca gcttccagcg gtactggaac agtggagaac 660
ccaacaatag cgggaatgaa gactgtgcgg aatttagtgg cagtggctgg aacgacaatc 720
gatgtgacgt tgacaattac tggatctgca aaaagccagc accctgcttc agagacgaat 780
aga 783

<210> 28
<211> 1115
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7524936CB1

<400> 28
tatgagtgac tccaaggaac caagggtgca gcagctgggc ctcctggaag atccaacaac 60
cagtggcatc agacttttc caagagactt tcaattccag cagatacatg gccacaagag 120
ctctacagtg tccaaggtcc ccagctccct aagtcaggaa caatccgagc aagacgcaat 180
ctaccagaac ctgacccagc ttaaagctgc agtgggtgag ctctcagaga aatccaagct 240
gcaggagatc taccaggagc tgacccagct gaaggctgca gtgggtgagt tgccagagaa 300
atccaagctg caggagatct accaggagct gacccggctg aaggctgcag tgggtgagtt 360
gccagagaaa tccaagctgc aggagatcta ccaggagctg acccggctga aggctgcagt 420
gggtgagttg ccagagaaat ccaagctgca ggagatctac caggagctga cccggctgaa 480
ggctgcagtg ggtgagttgc cagagaaatc caagctgcag gagatctacc aggagctgac 540
ggagctgaag gctgcagtgg gtgagttgcc agagaaatcc aagctgcagg agatctacca 600
ggagctgacc cagctgaagg ctgcagtggg tgagttgcca gaccagtcca agcagcagca 660
aatctatcaa gaactgaccg atttgaagac tgcatttgaa cgcctgtgcc gccactgtcc 720
caaggactgg acattcttcc aaggaaactg ttacttcatg tctaactccc agcggaactg 780
gcacgactcc gtcaccgcct gccaggaagt gagggcccag ctcgtcgtaa tcaaaactgc 840
tgaggagcag aacttcctac agctgcagac ttccaggagt aaccgcttct cctggatggg 900
actttcagac ctaaatcagg aaggcacgtg gcaatgggtg gacggctcac ctctgtcacc 960
cagcttccag cggtactgga acagtggaga acccaacaat agcgggaatg aagactgtgc 1020
ggaatttagt ggcagtggct ggaacgacaa tcgatgtgac gttgacaatt actggatctg 1080
caaaaagcca gcacctcgct tcagagacga ataga 1115

<210> 29
<211> 528
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7512039CB1

<400> 29
aaacactcct gaggagaaag aaagagaggg agggagagaa aaagagagag agagaaacaa 60
aaaaccaaag agagagaaaa aatgaattca tctaaatcat ctgaaacaca atgcacagag 120
agaggatgct tctcttccca aatgttctta tggactgttg ctgggatccc catcctattt 180
ctcagtgcct gtttcatcac cagatgtgtt gtgacatttc gcatctttca aacctgtgat 240
gagaaaaagt ttcagctacc tgagaatttc acagagctct cctgctacaa ttatggatca 300
gcttctggga tgtaggggag cccaacaaca tagctaccct ggaggactgt gccaccatga 360
gagactcttc aaacccaagg caaaattgga atgatgtaac ctgtttcctc aattattttc 420

ggatttgtga aatggtagga ataaatcctt tgaacaaagg aaaatctctt taagaacaga 480
aggcacaact caaatgtgta aagaaggaag agcaagaaca ttggccac 528

<210> 30
<211> 1365
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7512576CB1

<400> 30
cgccttcacg atgccggcgg tcagtggtcc aggtccctta ttctgccttc tcctcctgct 60
cctggacccc cacagccctg agacggggtg tcctcctcta cgcaggtttg agtacaagct 120
cagcttcaaa ggcccaaggc tggcattgcc tggggctgga atacccttct ggagccatca 180
tggagacgcc atcctgggcc tggaggaagt gcggctgacg ccatccatga ggaaccggag 240
tggcgccgtg tggagcaggg cctctgtccc cttctctgcc tgggaagtag aggtgcagat 300
gagggtgacg ggactggggc gccggggagc ccagggcatg gccgtgtggt acacccgggg 360
caggggccat gtaggctctg tccttggggg gctggcttcg tgggacggca tcgggatctt 420
ctttgactct ccggcagagg atactcagga cagtcctgcc atccgtgtgc tggccagcga 480
cgggcacatc ccctctgagc agcctgggga tggagctagc caagggctgg gctcctgtca 540
ttgggacttc cggaaccggc cacacccctt cagagcacgg atcacctact gggggcagag 600
gctgcgcatg tccttgaaca gtggcctcac tcccagtgat ccagatgatc atgatgtcct 660
gtccttcctg accttcagcc tgagtgagcc cagcccagag gttccccctc agcccttcct 720
ggagatgcag cagctccgcc tggcgaggca gctggaaggg ctgtgggcaa ggctgggctt 780
gggcaccagg gaggatgtaa ctccaaaatc agactctgaa gctcaaggag aaggggaaag 840
gctctttgac ctggaggaga cgctgggcag acaccgccgg atcctgcagg ctctgcgggg 900
tctctccaag cagctggccc aggctgagag acaatggaag aagcagctgg ggcccccagg 960
ccaagccagg cctgacggag gctgggccct ggatgcttcc tgccagattc catccacccc 1020
agggaggggt ggccacctct ccatgtcact caataaggac tctgccaagg tcggtgccct 1080
gctccatgga cagtggactc tgctccaggc cctgcaagag atgagcaggc aggagctgaa 1140
caagagcctt caggagtgtc tgtccacagg cagccttcct ctgggtcctg caccacacac 1200
ccccagggcc ctggggattc tgatgaggca gcctctccct gccagcatgc ctgcctgacc 1260
cacctcagag cctgctttgc atcactggga agcaggcagt gtcttgggtg ggggcttggt 1320
cagtatcctc tccgtctgtg tacccagctg ccacgaactg agctt 1365

<210> 31
<211> 1343
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7514864CB1

<400> 31
taagtagccg caggcatggc ggcggctatg ccgcttgctc tgctcgtcct gttgctcctg 60
gggcccggcg gctggtgcct tgcagaaccc ccacgcgaca gcctgcggga ggaacttgtc 120
atcaccccgc tgccttccgg ggacgtagcc gccacattcc agttccgcac gcgctgggat 180
tcggagcttc agcgggaagg aggcctctct gtgctgctga aggcagatcg cttgttccac 240
accagctacc actcccaggc agtgcatatc cgccctgttt gcagaaatgc acgctgtact 300
agcatctcct gggagctgag gcagaccctg tcagttgtat ttgatgcctt catcgcgggg 360
cagggaaaga aagactggtc cctcttccgg atgttctccc gaaccctcac ggagccctgc 420
cccctggctt cagagagccg agtctatgtg gacatcacca cctacaacca ggacaacgag 480
acattagagg tgcacccacc cccgaccact acatatcagg acgtcatcct aggcactcgg 540
aagacctatg ccatctatga cttgcttgac accgccatga tcaacaactc tcgaaacctc 600
aacatccagc tcaagtggaa gagaccccca gagaatgagg ccccccagt gcccttcctg 660
cgtgcccagc ggtacgtgag tggctatggg ctgcagaagg gggagctgag cacactgctg 720
tacaacaccc acccataccg ggccttcccg gtgctgctgc tggacaccgt accctggtat 780
ctgcggctgt atgtgcacac cctcaccatc acctccaagg gcaaggagaa caaaccaagt 840
tacatccact accagcctgc ccaggaccgg ctgcaacccc acctcctgga gatgctgatt 900
cagctgccgg ccaactcagt caccaaggtt tccatccagt ttgagcgggc gctgctgaag 960

tggaccgagt acacgccaga tcctaaccat ggcttctatg tcagcccatc tgtcctcagc 1020
gcccttgtgc ccagcatggt agcagccaag ccagtggact gggaagagag tcccctcttc 1080
aacagcctgt tcccagtctc tgatggctct aactactttg tgcggctcta cacggagccg 1140
ctgctggtga acctgccgac accggacttc agcatgccct acaacgtgat ctgcctcacg 1200
tgcactgtgg tggccgtgtg ctacggctcc ttctacaatc tcctcacccg aaccttccac 1260
atcgaggagc cccgcacagg tggcctggcc aagcggctgg ccaaccttat ccggcgcgcc 1320
cgaggtgtcc ccccactctg ata 1343

<210> 32
<211> 1840
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 8266965CB1

<400> 32
agcttctacc cggagctggg gccctacagc tcccgggacc ccgaagtgct gcgggagcat 60
atgacccagc tcaaggaagc cgccatcggc gtcctggtcc tgtcctggta cccacctggc 120
atggctgatg ataacgggga gccctcagat gacctggtgc ccgccattct ggacaccgcc 180
catcagtaca gcatccaggt ggccttccac atccaaccct acaagggccg ggatgacatc 240
actgtacatg acaacatcaa gtacatcatt gacacgtatg gctcccatgg tgcattttac 300
cgctataaga acagcatggg caagagcctc ccactctttt atatctacga ctcatacctg 360
acgtcccctg aggcctgggc ccacctcctg acaccaaacg ggccccattc gatccgcaac 420
acgccctacg atggggtctt catagcgctg ctggtggagg agggccacac ccacgatatc 480
ctggccgccg gatttgacgg catgtacacc tactttgcct ccaatggttt ctcctttggt 540
tcttcccatc agaactggaa agctgtgaag aacttttgtg atgccaacaa cctcatgttc 600
atccccagtg tggggcctgg ctacatagac accagcattc ggccctggaa caaccacaat 660
acgcgcaaca gggtcaatgg caagtactat gagacggccc tgcaggcggc cctgacagtg 720
aggcccgaga tcgtttccat tacctccttc aatgagtggc acgagggcac ccagattgag 780
aaggccattc ccaagaagac acccacccgc ctgtatttgg actacctgcc tcaccagccc 840
agcctgtacc tggagctgac acgccgctgg gcggagcact tcatcaaaga gaaggagcag 900
tggctcatgt gaggggcctg taaatgggcg tgaggtgctg atgtccttgc cttgctggaa 960
gatgtcacca tgtggggttc agctgaggtt gtagccactc actcgttccc aggtcagagg 1020
tcagcagatg ggtgtttctg ggtgggccgt caggcatggg cctgtgcaac acagagcccg 1080
ttcctcaggc gagtggtgct gaggtgctct gtggtgatgg gaacggcaga ggctggcagg 1140
tgactgaact tagcccaggg cagctccaca tcctgggaac actttcatgt aaccccttct 1200
agttttgaac tctgcagcag gctggtgctg tgtagtggcc acccagtcac caccccttgga 1260
agggtgtcag ggtctgggct cgcatgcacc ctgctccctt ctgccagcct gcatcctctc 1320
ctcaggcctc cttcccacat catctgtctt ctctaagtta gggaaccata tttgagactt 1380
tcaaaaaggg aacttctagg tttaagctcc tcccagtaga ttcctgaacc caattatcag 1440
gaaatcatcc tgagcactca caggttcatt taacactcac tcatcaagca ccttcctatg 1500
tgctaggtgc tggggaaaac ttgaccaagg aagagttcct gtcctgaagc ttccaggacc 1560
cagctttcct tttctggtgt ggccttgtag ctagtgcctg ggcacaggtg tttttctttt 1620
tgcagtttta cctagtgctg ggagttcagt tctttttcct ctagaaaaat acctctgtgc 1680
tccagagcct aatttttccc agatgcatat ttagctctag ggagaggact aggaggaaat 1740
ccccctccct ttagctgcct gaactgactg aggcccactc actagagcca tgttcagtgc 1800
tactgtgatt agtagtaatt aaatatgaac tggtattctc 1840

<210> 33
<211> 523
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7515124CB1

<400> 33
agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt gccctgatgg 60
gagttcgtgc ttctgaaagg ctggctgaaa tagacatgcc atacctcctg aaatatcaac 120
ccatgatgca aaccattggc caaaagtact gcatggatcc tgccgtgatc gctggtgtct 180

tgtccaggaa gtctcccggt gacaaaattc tggtcaacat gggcgatagg actagcatgg 240
tgcaggaccc tggctctcaa gctcccacat cctggattag tgagtctcag gtttcccaga 300
caactgaagt tctgactact agaatcaaag aaatccagag gaggtttcca acctggaccc 360
ctgaccagta cctgagaggt ggactctgtg cctacagtgg gggtgctggc tatgtccgaa 420
gcagccagga cctgagctgt gacttctgca atgatgtcct tgcacgagcc aagtacctca 480
agagacatgg cttctaacat ctcagatgaa acccaagacc ata 523

<210> 34
<211> 924
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7514570CB1

<400> 34
tatgcatgac agtaacaatg tggagaaaga cattacacca tctgaattgc ctgcaaaccc 60
agcaataaga gctaactgcc atcaagagcc atcagtatgt cttcaagctg catgcccaga 120
aagctggatt ggttttcaaa gaaagtgttt ctatttttct gatgacacca agaactggac 180
atcaagtcag aggttttgtg actcacaaga tgctgatctt gctcaggttg aaagcttcca 240
ggaactgaat ttcctgttga gatataaagg cccatctgat cactggattg ggctgagcag 300
agaacaaggc caaccatgga aatggataaa tggtactgaa tggacaagac agtttcctat 360
cctgggagca ggagagtgtg cctatttgaa tgacaaaggt gccagtagtg ccaggcacta 420
cacagagagg aagtggattt gttccaaatc agatatacat gtctagatgt tacagcaaag 480
ccccaactaa tctttagaag catattggaa ctgataactc cattttaaaa tgagcaaaga 540
atttatttct tataccaaca ggtatatgaa aatatgctca atatcactaa taactgggaa 600
aatacaaatc aaaatcatag taaaatatta cctgttttca tggtgctaat attacctgtt 660
ctcccactgc taatgacata cccgagactg agtaatttat aaataaaaga gatttaattg 720
actcatagtt ccacatggct ggggaggtct tgcaatcatg acagaaggca aatgggaagc 780
aaagtcatgt cttatgtggt ggcaggcagg gggacttgtg cacaggaact cctatttata 840
caaccatcag atatcttgag acaagaacag tatggggctc cctggtgtga ttccgtcctg 900
cgcggctgtt ctctggagca gcat 924

<210> 35
<211> 1346
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7515114CB1

<400> 35
tagacttcag gcgccttcac gatgccggcg gtcagtggtc caggtccctt attctgcctt 60
ctcctcctgc tcctggaccc ccacagccct gagacggggt gtcctcctct acgcaggttt 120
gagtacaagc tcagcttcaa aggcccaagg ctggcattgc ctggggctgg aataccttc 180
tggagccatc atggagacgc catcctgggc ctggaggaag tgcggctgac gccatccatg 240
aggaaccgga gtggcgccgt gtggagcagg gcctctgtcc ccttctctgc ctgggaagta 300
gaggtgcaga tgagggtgac gggactgggg cgccggggag cccagggcat ggccgtgtgg 360
tacacccggg gcaggggcca tgtaggctct gtccttgggg ggctggcttc gtgggacggc 420
atcgggatct tctttgactc tccggcagag gatactcagg acagtcctgc catccgtgtg 480
ctggccagcg acgggcacat cccctctgag cagcctgggg atggagctag ccaagggctg 540
ggctcctgtc attgggactt ccggaaccgg ccacacccct tcagagcacg gatcacctac 600
tgggggcaga ggctgcgcat gtccttgaac agtggcctca ctcccagtga tccaggtgag 660
ttctgtgtgg atgtggggcc cctgcttttg gtccctggag gtttctttgg ggtctcagca 720
gccaccggca ccctggcagg tgaggatccc actggacagg ttccccctca gcccttcctg 780
gagatgcagc agctccgcct ggcgaggcag ctggaagggc tgtgggcaag gctgggcttg 840
ggcaccaggg aggatgtaac tccaaaatca gactctgaag ctcaaggaga aggggaaagg 900
ctctttgacc tggaggagac gctgggcaga caccgccgga tcctgcaggc tctgcggggt 960
ctctccaagc agctggccca ggctgagaga caatggaaga agcagctggg gcccccaggc 1020
caaaccaggc ctgacggagg ctgggccctg gatgcttcct gccagattcc atccacccca 1080
gggaggggtg gccacctctc catgtcactc aataaggact ctgccaaggt cggtgccctg 1140

ctccatggac agtggactct gctccaggcc ctgcaagaga tgagcaggca ggagctgaac 1200
aagagccttc aggagtgtct gtccacaggc agccttcctc tgggtcctgc accacacacc 1260
cccagggccc tggggattct gaggaggcag cctctccctg ccagcatgcc tgcctgaccc 1320
acctcagagc ctgctttgca tcacta 1346

<210> 36
<211> 1379
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7515136CB1

<400> 36
tagacttcag gcgccttcac gatgccggcg gtcagtggtc caggtccctt attctgcctt 60
ctcctcctgc tcctggaccc ccacagccct gagacggggt gtcctcctct acgcaggttt 120
gagtacaagc tcagcttcaa aggcccaagg ctggcattgc ctggggctgg aataccttc 180
tggagccatc atggagacgc catcctgggc ctggaggaag tgcggctgac gccatccatg 240
aggaaccgga gtggcgccgt gtggagcagg gcctctgtcc ccttctctgc ctgggaagta 300
gaggtgcaga tgagggtgac gggactgggg cgccggggag cccagggcat ggccgtgtgg 360
tacacccggg gcaggggcca tgtaggctct gtccttgggg ggctggcttc gtgggacggc 420
atcgggatct tctttgactc tccggcagag gatactcagg acagtcctgc catccgtgtg 480
ctggccagcg acgggcacat cccctctgag cagcctgggg atggagctag ccaagggctg 540
ggctcctgtc attgggactt ccggaaccgg ccacacccct tcagagcacg gatcacctac 600
tgggggcaga ggctgcgcat gtccttgaac agtggcctca ctcccagtga tccaggtgag 660
ttctgtgtgg atgtggggcc cctgcttttg gtccctggag gtttctttgg ggtctcagca 720
gccaccggca ccctggcaga tgatcatgat gtcctgtcct tcctgacctt cagcctgagt 780
gagcccagcc cagaggttcc ccctcagccc ttcctggaga tgcagcagct ccgcctggcg 840
aggcagctgg aagggctgtg ggcaaggctg ggcttgggca ccagggagga tgtaactcca 900
aaatcagact ctgaagctca aggagaaggg gaaaggctct ttgacctgga ggagacgctg 960
ggcagacacc gccggatcct gcaggctctg cggggtctct ccaagcagct ggcccaggct 1020
gagagacaat ggaagaagca gctggggccc ccaggccaag ccaggcctga cggaggctgg 1080
gccctggatg cttcctgcca gattccatcc accccaggga ggggtggcca cctctccatg 1140
tcactcaata aggactctgc caaggtcggt gccctgctcc atggacagtg gactctgctc 1200
cgggccctgc aagagatgag gcaggagctg aacaagagcc ttcaggagtg tctgtccaca 1260
ggcagccttc ctctgggtcc tgcaccacac acccccaggg ccctggggat tctgaggagg 1320
cagcctctcc ctgccagcat gcctgcctga cccacctcag agcctgcttt gcatcacta 1379

<210> 37
<211> 999
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7515308CB1

<400> 37
gaaagatttg aaacagattt tctgaagaaa gcagaagctc tcttcccatt atgacttcgg 60
aaatcactta tgctgaagtg aggttcaaaa atgaattcaa gtcctcaggc atcaacacag 120
cctcttctgc agttttcttt caaaaatatt ctcagcttct tgaaaaaaag actacaaaag 180
agctggttca tacaacattg gagtgtgtga aaaaaaatat gcccgtggaa gagacagcct 240
ggagctgttg cccaaagaat tggaagtcat ttagttccaa ctgctacttt atttctactg 300
aatcagcatc ttggcaagac agtgagaagg actgtgctag aatggaggct cacctgctgg 360
tgataaacac tcaagaagag caggatttca tcttccagaa tctgcaagaa gaatctgctt 420
attttgtggg gctctcagat ccagaaggtc agcgacattg gcaatgggtt gatcagacac 480
catacaatga aagttccgca ttctggcatc cacgtgagcc cagtgatccc aatgagcgct 540
gcgttgtgct aaattttcgt aaatcaccca aaagatgggg ctggaatgat gttaattgtc 600
ttggtcctca aaggtcagtt tgtgagatga tgaagatcca cttatgaact gaacattctc 660
catgaacagg tggttggatt ggtatctgtc attgtaggga tagataataa gctcttctta 720
ttcatgtgta agggaggtcc atagaattta ggtggtctgt caactattct acttatgaga 780
gaattggtct gtacattgac tgattcactt tttcataaag tgagcattta ttgagcattt 840

tttcatgtgc cagagcctgt actggaggcc cccattgtgc acacatggag agaacatgag 900
tctctcttaa tttttatctg gttgctaaag aattatttac caataaaatt atatgatgtg 960
gtgtctcctc ctgtctggtt ttctcttcat ccctactat 999

<210> 38
<211> 1072
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7516738CB1

<400> 38
tagtttgctt ggagctcctg gggcctaaca aaaagaaacc tgccatgctg ctcttcctcc 60
tctctgcact ggtcctgctc acacagcccc tgggctacct ggaagcagaa atgaagacct 120
actcccacag aacaatgccc agtgcttgca ccctggtcat gtgtagctca gtggagagtg 180
gcctgcctgg tcgcgatgga cgggatggga gagagggccc tcggggcgag aaggggacc 240
caggtttgcc aggagctgca gggcaagcag ggatgcctgg acaagctggc ccagttgggc 300
ccaaagggga caatggctct gttggagaac ctggaccaaa gggagacact gggccaagtg 360
gagaagtagg tgccccaggc atgcagggct cggcaggggc aagaggcctc gcaggcccta 420
agggagagcg aggtgtccct ggtgagcgtg gagtccctgg aaacgcaggg gcagcagggt 480
ctgctggagc catgggtccc cagggaagtc caggtgccag gggacccccg ggattgaagg 540
gggacaaagg cattcctgga gacaaaggag caaagggaga aagtgggctt ccagatgttg 600
cttctctgag gcagcaggtt gaggccttac agggacaagt acagcacctc caggctgctt 660
tctctcagta taagaaagtt gagctcttcc caaatggcca aagtgtcggg gagaagattt 720
tcaagacagc aggctttgta aaaccattta cggaggcaca gctgctgtgc acacaggctg 780
gtggacagtt ggcctctcca cgctctgccg ctgagaatgc cgccttgcaa cagctggtcg 840
tagctaagaa cgaggctgct ttcctgagca tgactgattc caagacagag ggcaagttca 900
cctaccccac aggagagtcc ctggtctatt ccaactgggc cccaggggag cccaacgatg 960
atggcgggtc agaggactgt gtggagatct tcaccaatgg caagtggaat gacagggctt 1020
gtggagaaaa gcgtcttgtg gtctgcgagt tctgagccaa ctggggtggg ta 1072

<210> 39
<211> 872
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7518619CB1

<400> 39
tagactccaa tcgacaagaa gctggaaaag aatgatgttg tccttaaaca acctacagaa 60
tatcatctat aacccggtaa tcccgtatgt tggcaccatt cccgatcagc tggatcctgg 120
aactttgatt gtgatatgtg ggcatgttcc tagtgacgca gacagattcc aggtggatct 180
gcagaatggc agcagtgtga aacctcgagc cgatgtggcc tttcatttca atcctcgttt 240
caaaagggcc ggctgcattg tttgcaatac tttgataaat gaaaaatggg gacgggaaga 300
gatcacctat gacacgcctt tcaaaagaga aaagtctttt gagatcgtga ttatggtgct 360
aaaggacaaa ttccaggttc caaagtctgg cacgccccag cttagcctgc cattcgctgc 420
aaggttgaac acccccatgg gccctggacg aactgtcgtc gttaaaggag aagtgaatgc 480
aaatgccaaa agctttaatg ttgacctact agcaggaaaa tcaaaggata ttgctctaca 540
cttgaaccca cgcctgaata ttaaagcatt tgtaagaaat tcttttcttc aggagtcctg 600
gggagaagaa gagagaaata ttacctcttt cccatttagt cctgggatgt actttgagat 660
gataatttac tgtgatgtta gagaattcaa ggttgcagta aatggcgtac acagcctgga 720
gtacaaacac agatttaaag agctcagcag tattgacacg ctggaaatta atggagacat 780
ccacttactg gaagtaagga gctggtagcc tacctacaca gctgctacaa aaaccaaaat 840
acagaatggc ttctgtgata ctggccttgc ta 872

<210> 40
<211> 864
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<223> Incyte ID No: 7513061CB1

<400> 40
aaatgactta aagccaccag ctaattgggc ttaatcattt ggactcagtt gactcttccc 60
ctacccctac ccatgcctaa accaaagaaa ggatcatccc acatttacct agcacaaaga 120
aatctactct tctgctcttt ctaggactgc taaaggccat gggaactgga cacctggatg 180
ctgcagagga agggcaaagc tcaacatcaa cttggacagt ttgccaacct gtttgtgaga 240
ttgctgattt gctccttaag caagagattc actgccgcta agcatggctc agaccaactc 300
gttcttcatg ctgatctcct ccctgatgtt cctgtctctg agccaaggcc aggagtccca 360
gacagagctg cctaatcccc gaatcagctg cccagaaggc accaatgcct atcgctccta 420
ctgctactac tttaatgaag accctgagac ctgggttgat gcagatctct attgccagaa 480
catgaattca ggcaacctgg tgtctgtgct cacccaggcg gagggtgcct tcgtggcctc 540
actgattaag gagagtagca ctgatgacag caatgtctgg attggcctcc atgacccaaa 600
aaaggattca agaaatggaa ggatgaatct tgtgagaaga agttctcctt tgtttgcaag 660
ttcaaaaact agaggaagct gaaaaatgga tgtctagaac tggtcctgca attactatga 720
agtcaaaaat taaactagac tatgtctcca actcagttca gaccatctcc tccctaatga 780
gtttgcatcg ctgatcttca gtaccttcac ctgtctcagt ctctagagcc ctgaaaaata 840
aaaacaaact tatttttaaa aaaa 864